

AD-A041 345

LOWER MISSISSIPPI REGION COMPREHENSIVE STUDY COORDINA--ETC F/G 8/6  
LOWER MISSISSIPPI REGION COMPREHENSIVE STUDY. PLAN OF STUDY. AN--ETC(U)  
APR 71

UNCLASSIFIED

NL

1 OF 1  
ADA  
041345

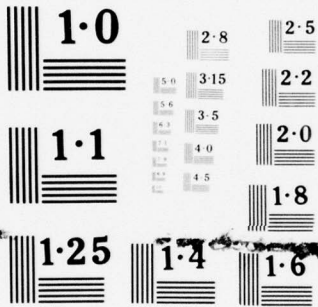


END

DATE

FILMED

7-77



NATIONAL BUREAU OF STANDARDS  
MICROCOPY RESOLUTION TEST CHART

ADA 041345

# LOWER MISSISSIPPI REGION COMPREHENSIVE STUDY

PLAN OF STUDY  
ANNEXES 1 - 5

AD NO.

DDC FILE COPY

APRIL 1971

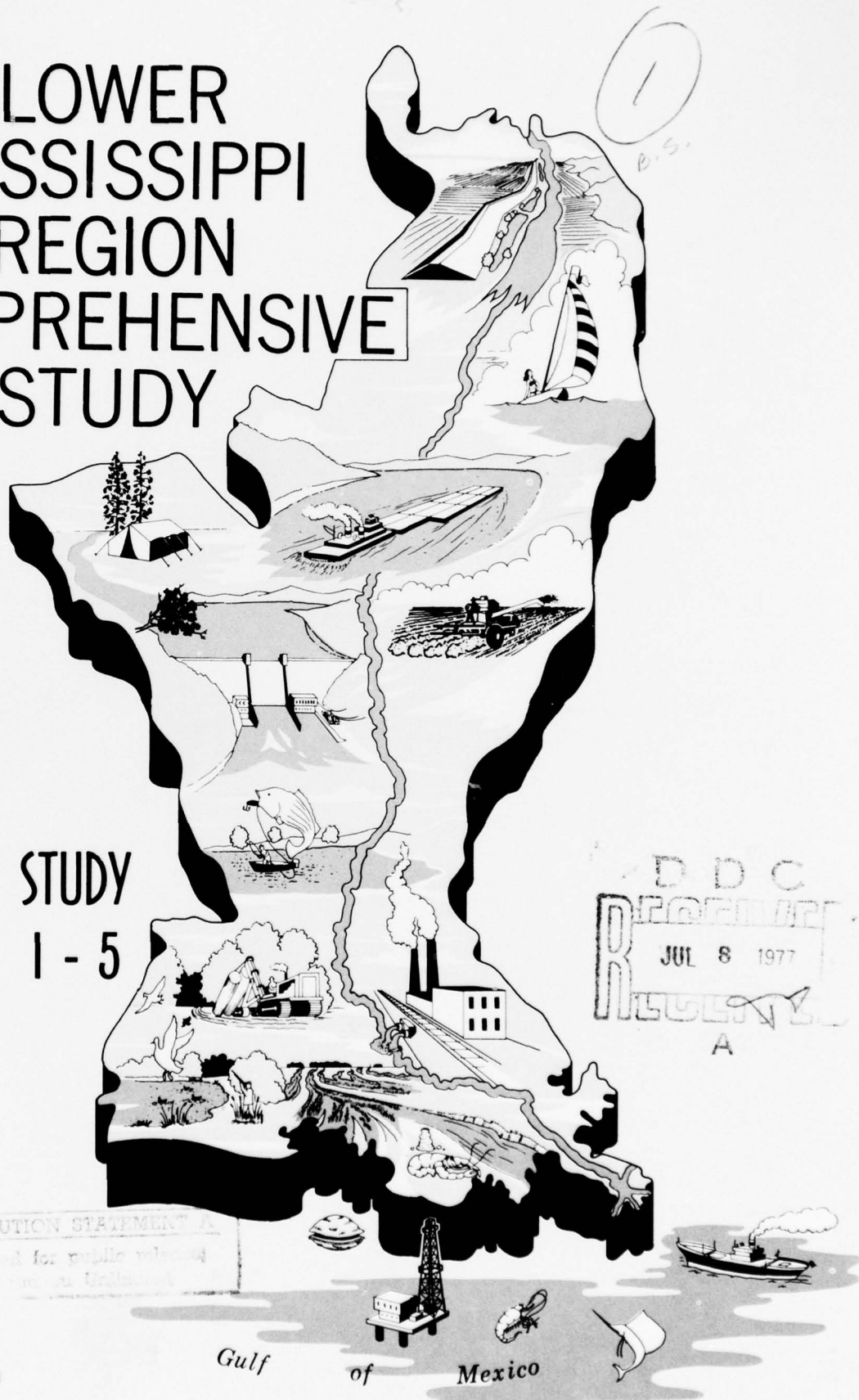
DISTRIBUTION STATEMENT A  
Approved for public release  
Distribution Unlimited

Gulf

of

Mexico

DDC  
RECEIVED  
JUL 8 1977  
REGISTRY  
A



①

⑥ ✓ LOWER MISSISSIPPI REGION COMPREHENSIVE STUDY  
 Plan of Study. Annexes 1-5.

LIST OF ANNEXES

⑪ Apr 71

TITLE

⑫ 72p.

↓  
 Contents:

- NO.
1. ORGANIZATION CHART;
  2. LIST OF COMMITTEES;
  3. LIST OF POSSIBLE MEASURES TO SATISFY DEMANDS;
  4. ESTIMATED STUDY COST; and
  5. DIRECTORY,

NO. 00 08 For	
RTG	TRIP GUIDE <input checked="" type="checkbox"/>
D.C.	RAIL LINES <input type="checkbox"/>
SHORELINES	<input type="checkbox"/>
JUSTIFICATION	
BY	
DISTRIBUTION/AVAILABILITY CODES	
DIRL	APRIL 1971/81/82/83/84
A	

DDC  
 RECEIVED  
 JUL 8 1977  
 A

DISTRIBUTION STATEMENT A  
 Approved for public release  
 Distribution Unlimited

410 262

mt

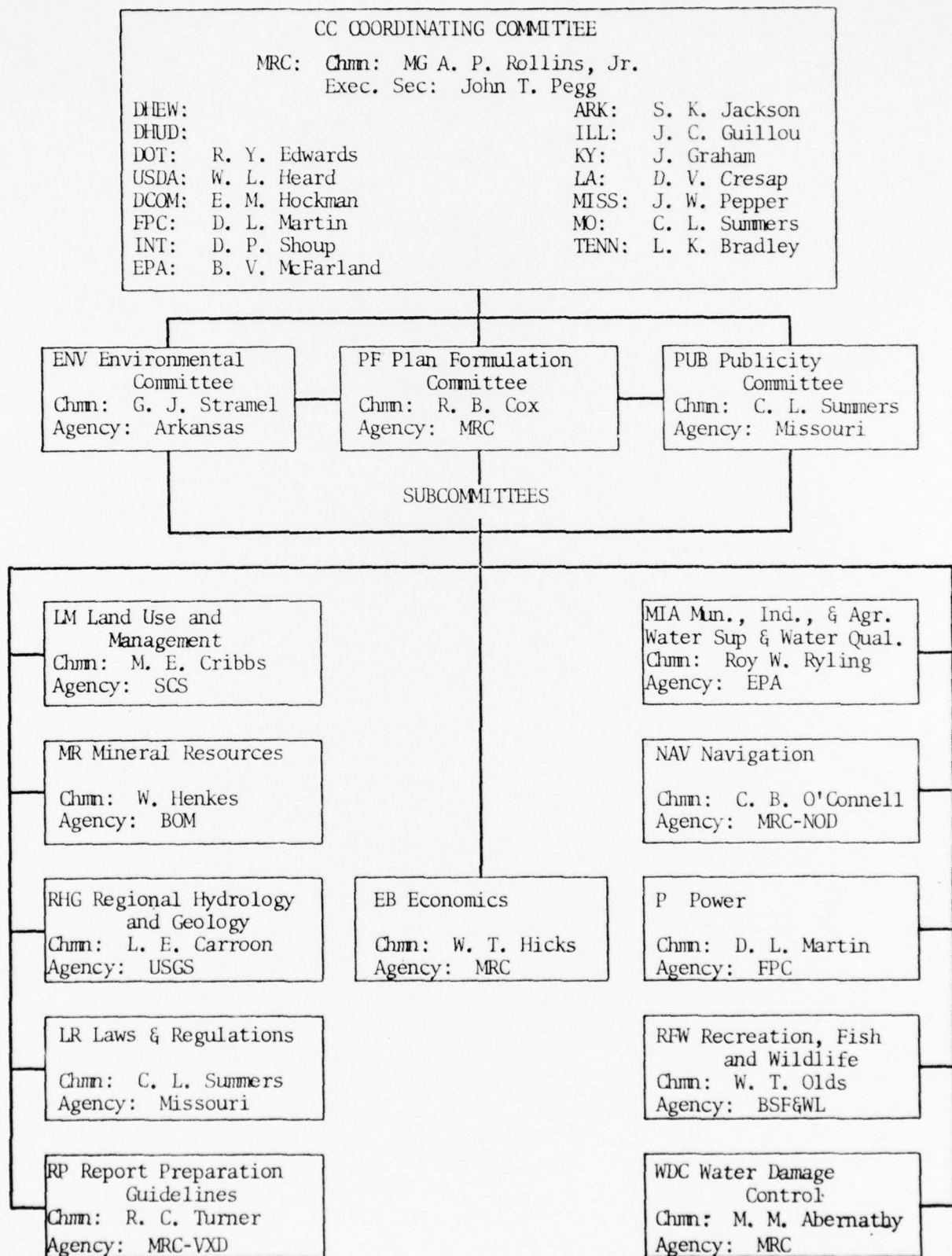
LOWER MISSISSIPPI REGION

COMPREHENSIVE STUDY

ORGANIZATION CHART

ANNEX NO. 1

LOWER MISSISSIPPI REGION COMPREHENSIVE STUDY  
ORGANIZATION CHART



LOWER MISSISSIPPI REGION

COMPREHENSIVE STUDY

LIST OF COMMITTEES

ANNEX NO. 2

LOWER MISSISSIPPI REGION COMPREHENSIVE STUDY

SUBCOMMITTEE AND STUDY ELEMENT

Agency	Members
EB Economics - (a. Economic Base)	
Mississippi River Commission - Lead	W. T. Hicks
	Alt: H. R. Gardner
Memphis District - MRC	C. H. Lewandoski
Vicksburg District - MRC	W. B. Hobgood
New Orleans District - MRC	E. K. Johnson
Economic Research Service	M. B. Allen
Department of Commerce (OBE)	H. L. DeGraff
Forest Service	E. I. Swenson
Bureau of Outdoor Recreation	G. G. Davidson
Southwestern Power Administration	A. J. Hickerson
Water Quality Office	R. W. Ryling
Dept. of Housing & Urban Development	R. Hawkins
Department of Labor	J. Strickland
Department of Transportation	Jack Hartke
Arkansas	W. A. Heffelfinger
Illinois	J. C. Guillou
Kentucky	J. Graham
Louisiana	D. V. Cresap
	J. C. Webb
Mississippi	B. F. Smith
Missouri	Andrew Loeb1
Tennessee	Bob Dean
	Kenneth Ackley
RHG Regional Hydrology & Geology - (b. Climate, Meterology, and Hydrology; c. Geology and Ground Water)	
U. S. Geological Survey - Lead	L. E. Carroon
	Alt: M. D. Hale
Mississippi River Commission	E. A. Graves
Memphis District - MRC	E. F. Rubenstein
Vicksburg District - MRC	Roy O. Smith
New Orleans District - MRC	P. A. Becnel, Jr.
Soil Conservation Service	
	J. Jenkins
Department of Commerce (NOAA)	J. P. McCallister
Forest Service	E. I. Swensen
Water Quality Office	R. W. Ryling
Arkansas	R. G. Andrews (b)
	N. F. Williams (c)
Illinois	J. C. Guillou
Kentucky	J. Graham
Louisiana	E. T. Taylor (b and c)
	L. W. Hough (c)
Mississippi	J. W. Pepper (b and c)
Missouri	W. C. Hayes
Tennessee	L. K. Bradley

# LOWER MISSISSIPPI REGION COMPREHENSIVE STUDY

## SUBCOMMITTEE AND STUDY ELEMENT

Agency	Members
WDC Water Damage Control - (d and e. Flood Problems; i. Land Drainage; o. Coastal and Estuarine; and v. Inventory of Facilities)	
Mississippi River Commission - Lead	M. M. Abernathy
	Alt: T. R. Campbell
Memphis District - MRC	D. W. Wolfe
Vicksburg District - MRC	V. C. Ahlrich
New Orleans District - MRC	R. A. Buissor, Jr.
Soil Conservation Service	J. Langston
Department of Commerce (NOAA)	J. P. McCallister
Forest Service	E. I. Swensen
U. S. Geological Survey	M. D. Hale
Dept. of Housing & Urban Development	C. Emmons
Bureau of Outdoor Recreation	G. G. Davidson
Arkansas	R. G. Andrews
Illinois	J. C. Guillou
Kentucky	J. Graham
Louisiana	T. C. Morgan
Mississippi	A. Ensminger (o)
	Newman Bolls (d and e)
	Joe F. Mooney, Jr. (d and e)
	J. W. Pepper (f) (i)
Missouri	W. A. Lee
	L. Norbury (d and e)
Tennessee	James W. Pinkerton
MR Mineral Resources - (g. Related Mineral Resources)	
Bureau of Mines - Lead	W. C. Henkes
	Alt: H. C. Stewart
Mississippi River Commission	A. T. Stone
Arkansas	N. F. Williams
Illinois	J. C. Guillou
Kentucky	J. Graham
Louisiana	L. W. Hough
Mississippi	A. Ensminger
Missouri	W. H. Moore
Tennessee	W. C. Hayes
	Robert Hershey

# LOWER MISSISSIPPI REGION COMPREHENSIVE STUDY

## SUBCOMMITTEE AND STUDY ELEMENT

Agency	Members
MIA Municipal, Industrial, and Agricultural Water Supply and Water Quality - (h. Irrigation; k. Municipal, Rural Domestic, and Industrial Water Supply; l. Water Quality and Pollution; m. Health Aspects)	
Environmental Protection Agency - Lead	Roy W. Ryling
	Alt: W. Greene
Mississippi River Commission	C. H. Harris
Memphis District - MRC	S. T. Christian
Vicksburg District - MRC	St. C. Thompson
New Orleans District - MRC	J. F. Roy
Soil Conservation Service	R. H. Wells
	J. Jenkins
	B. T. Kuntz
Economic Research Service	
Dept. of Health, Education, & Welfare	M. D. Hale
U. S. Geological Survey	P. E. McKee
Federal Power Commission	C. Enmons
Dept. of Housing & Urban Development	K. L. Kollar
Bureau of Domestic Commerce	
Dept. of Transportation	G. G. Davidson
Bureau of Outdoor Recreation	R. E. Eichhorn
Bureau of Sport Fisheries & Wildlife	A. Bryniarski (h)
Arkansas	G. Kellogg (k and m)
	L. L. Cockman, Jr. (1)
Illinois	J. C. Guillou
Kentucky	J. Graham
Louisiana	E. J. Taylor (h,k, and l)
	R. Lafleur (1)
	J. E. Trygg (m)
Mississippi	J. W. Pepper (h and l)
	Glenn Wood, Jr. (1)
	J. D. Brown (m)
Missouri	W. A. Lee; L. F. Garber (m)
	L. Norbury (h)
	R. S. Miller (k)
	E. Lightfoot (1)
Tennessee	John M. Wilson
	James Church
NAV Navigation (j.)	
Mississippi River Commission (NOD) - Lead	C. B. O'Connell
Memphis District - MRC	N. D. Caldwell
Vicksburg District - MRC	W. B. Hobgood

# LOWER MISSISSIPPI REGION COMPREHENSIVE STUDY

## SUBCOMMITTEE AND STUDY ELEMENT

Agency	Members
NAV Navigation--continued	
Mississippi River Commission	H. R. Gardner
Department of Commerce	A. F. Brown
Department of Transportation	
Bureau of Outdoor Recreation	P. D. Adams
Arkansas	C. Olsson
Illinois	J. C. Guillou
Kentucky	J. Graham
Louisiana	A. R. Theis
Mississippi	J. W. Pepper
Missouri	C. L. Summers
Tennessee	
RFW Recreation and Fish & Wildlife - (n. Recreation; p. Aesthetic and Cultural Values; and q. Fish and Wildlife)	
Bureau of Sport Fisheries & Wildlife - Lead	W. T. Olds
	Alt: R. E. Eichhorn
Mississippi River Commission	C. H. Harris
Economic Research Service	B. T. Kuntz
Forest Service	E. I. Swensen
Dept. of Health, Education, & Welfare	
Bureau of Outdoor Recreation	G. G. Davidson
National Park Service	V. W. Flickinger
Federal Power Commission	
Water Quality Office	R. E. Austin
Dept. of Housing & Urban Development	
Soil Conservation Service	M. E. Cribbs
National Marine Fisheries Service (NOAA)	E. L. Arnold
	Alt: R. L. Schuler
Department of Transportation	
Arkansas	B. K. Bush (n)
	H. Alexander (p)
	Richard W. Broach
Illinois	J. C. Guillou
Kentucky	J. Graham
Louisiana	P. Ryan (n)
	D. W. Wills (p and q)
Mississippi	S. E. Medlin (n)
	Hugh Tatum (n)
	B. J. Cross (q)
	Alt: B. O. Freeman
Missouri	R. L. Dundeson
	W. H. Dieffenback (q)
Tennessee	Walter Criley

# LOWER MISSISSIPPI REGION COMPREHENSIVE STUDY

## SUBCOMMITTEE AND STUDY ELEMENT

Agency	Members
P Power (r. Power)	
Federal Power Commission - Lead	D. L. Martin
Mississippi River Commission	Alt: G. Townsend
Southwestern Power Administration	E. H. Ardahl
Arkansas	A. J. Hickerson
Illinois	S. K. Jackson
Kentucky	J. C. Guillou
Louisiana	J. Graham
Mississippi	D. Cresap
Missouri	J. Pepper
Tennessee	C. L. Summers
	L. K. Bradley
LM Land Use and Management - (f. Related Land Use and Management, and s. Sediment and Erosion)	
Soil Conservation Service - Lead	M. E. Cribbs
Mississippi River Commission	H. R. Gardner
Economic Research Service	M. B. Allen
Bureau of Sport Fisheries and Wildlife	R. E. Eichhorn
Bureau of Outdoor Recreation	Alt: W. T. Olds
Water Quality Office	G. G. Davidson
Forest Service	C. H. Hembree
Dept. of Housing & Urban Development	E. I. Swensen
Arkansas	D. Singletary
Illinois	R. G. Andrews
Kentucky	
Louisiana	W. P. Beedle (f and s)
Mississippi	D. W. Wills (f)
Missouri	Clarence H. Morgan (f)
Tennessee	J. W. Pepper (s)
	E. Glaser
	Jack S. Cuning
LR Laws and Regulations - (u. Legal and Institutional Environments)	
Missouri - Lead	C. L. Summers
Mississippi River Commission	T. R. Campbell
Soil Conservation Service	M. E. Cribbs
Office of Regional Solicitor, USDI	S. E. Taylor
Arkansas	J. F. Gibson, Jr.
Illinois	J. C. Guillou
Kentucky	J. Graham
Louisiana	H. J. Belanger
Mississippi	J. W. Pepper
Missouri	C. L. Summers
Tennessee	L. K. Bradley

# LOWER MISSISSIPPI REGION COMPREHENSIVE STUDY

## SUBCOMMITTEE AND STUDY ELEMENT

Agency	Members
PF Plan Formulation (t.)	
Mississippi River Commission - Lead	R. B. Cox
	Alt: T. R. Campbell
Work Unit WRPA 23	D. W. Wolfe
Work Unit WRPA 4567	V. C. Ahlrich
Work Unit WRPA 890	F. M. Chatry
Soil Conservation Service	M. E. Cribbs
Dept. of Housing & Urban Development	W. R. Yerkes
Economic Research Service	M. B. Allen
Forest Service	E. I. Swensen
U. S. Geological Survey	M. D. Hale
Bureau of Outdoor Recreation	G. G. Davidson
Bureau of Sport Fisheries and Wildlife	R. E. Eichhorn
National Park Service	V. W. Flickinger
Southwestern Power	A. J. Hickerson
Water Quality Office	R. W. Ryling
Department of Commerce	H. DeGraff
Department of Interior	K. Schroeder
Arkansas	S. K. Jackson
Illinois	J. C. Guillou
Kentucky	Jewell Graham
Louisiana	J. W. Pepper
Missouri	C. L. Summers
Tennessee	L. K. Bradley
	Kenneth Ackley
RP Report Preparation (w.)	
Mississippi River Commission - Lead	R. C. Turner
Soil Conservation Service	M. E. Cribbs
U. S. Geological Survey	M. D. Hale
National Park Service	V. W. Flickinger
Water Quality Office	R. W. Ryling

LOWER MISSISSIPPI REGION COMPREHENSIVE STUDY

AD HOC COMMITTEES

Agency	Members
ENV Environmental	
Arkansas - Lead	G. J. Stramel
Mississippi River Commission	C. H. Harris
Department of Agriculture	M. E. Cribbs
Department of Interior	Paul D. Adams
Department of Transportation	
Illinois	John Carlisle
Kentucky	Herman D. Regan, Jr.
Louisiana	Gus Stacy III
Mississippi	Jack Pepper
Missouri	Bill Dieffenback
Tennessee	David Eberling
PUB Publicity	
Missouri - Lead	C. L. Summers
Dept. of Housing & Urban Development	Clyde Emmons
Louisiana	C. V. Cresap

# LOWER MISSISSIPPI REGION COMPREHENSIVE STUDY

## PLAN FORMULATION WORK GROUPS

Agency	Members
WRPA 1	
Plan Formulation Committee (membership listed on page 2-6).	
WRPA 2	
Mississippi River Commission, MD - Lead	D. W. Wolfe
Soil Conservation Service	M. E. Cribbs, Miss.
	J. H. Johnson, Ark.
	J. J. Walker, Mo.
Economic Research Service	M. B. Allen
Forest Service	E. I. Swensen
	Alt: L. B. Long
U. S. Geological Survey	L. E. Carroon
Bureau of Outdoor Recreation	G. G. Davidson
Bureau of Sport Fisheries & Wildlife	R. E. Eichhorn
National Park Service	V. W. Flickinger
Southwestern Power Administration	A. J. Hickerson
Water Quality Office	K. Kirkpatrick
	Alt: C. H. Hembree
Arkansas	R. G. Andrews
Missouri	Cliff Summers
WRPA 3	
Mississippi River Commission, MD - Lead	D. W. Wolfe
Soil Conservation Service	M. E. Cribbs, Miss.
	Charles Patton, Tenn.
Economic Research Service	M. B. Allen
Forest Service	E. I. Swensen
	Alt: L. B. Long
U. S. Geological Survey	L. E. Carroon
Bureau of Outdoor Recreation	G. G. Davidson
Bureau of Sport Fisheries & Wildlife	R. E. Eichhorn
National Park Service	V. W. Flickinger
Southwestern Power Administration	A. J. Hickerson
Water Quality Office	K. Kirkpatrick
	Alt: C. H. Hembree
Illinois	L. M. Pipkin
Kentucky	Jewell Graham
Mississippi	J. W. Pepper
Tennessee	K. A. Ackley

# LOWER MISSISSIPPI REGION COMPREHENSIVE STUDY

## PLAN FORMULATION WORK GROUPS

Agency	Members
WRPA 4 and 7	
Mississippi River Commission, VXD - Lead	V. C. Ahlrich
Soil Conservation Service	M. E. Cribbs
Forest Service	E. I. Swensen
Economic Research Service	M. B. Allen
U. S. Geological Survey	L. E. Carroon
Bureau of Outdoor Recreation	G. G. Davidson
Bureau of Sport Fisheries and Wildlife	R. E. Eichhorn
National Park Service	V. W. Flickinger
Water Quality Office	K. Kirkpatrick
	Alt: C. H. Hembree
Southwestern Power Administration	A. J. Hickerson
Mississippi	J. W. Pepper
WRPA 5 and 6	
Mississippi River Commission, VXD - Lead	V. C. Ahlrich
Soil Conservation Service	M. E. Cribbs
Forest Service	E. I. Swensen
Economic Research Service	M. B. Allen
U. S. Geological Survey	L. E. Carroon
Bureau of Outdoor Recreation	G. G. Davidson
Bureau of Sport Fisheries and Wildlife	R. E. Eichhorn
National Park Service	V. W. Flickinger
Southwestern Power Administration	A. J. Hickerson
Water Quality Office	K. Kirkpatrick
	Alt: C. H. Hembree
Arkansas	S. K. Jackson
Louisiana	A. R. Theis
	Alt: T. C. Morgan
WRPA 8	
Mississippi River Commission, NOD - Lead	F. M. Chatry
Economic Research Service	M. B. Allen
Bureau of Outdoor Recreation	G. G. Davidson
Bureau of Sport Fisheries & Wildlife	R. E. Eichhorn
U. S. Geological Survey	M. D. Hale
National Park Service	V. W. Flickinger
Southwestern Power Administration	A. J. Hickerson
Water Quality Office	K. Kirkpatrick
Forest Service	E. I. Swensen
Soil Conservation Service	M. E. Cribbs
Louisiana	A. R. Theis
Mississippi	J. W. Pepper

# LOWER MISSISSIPPI REGION COMPREHENSIVE STUDY

## PLAN FORMULATION WORK GROUPS

Agency	Members
WRPA 9 and 10	
Mississippi River Commission, NOD - Lead Economic Research Service Bureau of Outdoor Recreation Bureau of Sport Fisheries & Wildlife	F. M. Chatry M. B. Allen G. G. Davidson R. E. Eichhorn
U. S. Geological Survey National Park Service Southwestern Power Administration Water Quality Office Forest Service Soil Conservation Service Louisiana	Alt: W. T. Olds Rex R. Meyer V. W. Flickinger A. J. Hickerson K. Kirkpatrick E. I. Swensen M. E. Cribbs A. R. Theis

LOWER MISSISSIPPI REGION  
COMPREHENSIVE STUDY

LIST OF POSSIBLE MEASURES TO SATISFY DEMANDS

ANNEX NO. 3

## PLAN FORMULATION

### POSSIBLE MEASURES TO SATISFY WATER RESOURCE DEMANDS

<u>DEMAND</u>	<u>MEASURES</u>
Municipal and Industrial Water Supply & Irrigation	Well (MGD) River intake Lake intake Storage (1000 Ac-Ft) Treatment plant (MGD) Diversion, interbasin (MGD) Diversion, intrabasin (MGD) Tunnel pipeline (miles) Pumping station (number & C.F.S. capacity) Aqueduct (miles)
Power Cooling	Cooling tower River intake Lake intake Estuarine intake Ocean intake Non-condensing facilities
Hydroelectric	Conventional storage (Ac-Ft) Pumped storage (Ac-Ft)
Navigation	Channel improvement (miles) Harbor improvement Diversion of cargo (tonnage) Rehabilitation of locks Removal of obstructions Offshore facilities Navigation aids Breakwater & jetty construction (No.) Recreational harbors (No.) Dikes (miles)
Water Oriented Recreation (Recreation-days)	Expand existing sites (1000 Ac) Provide facilities at existing undeveloped water bodies New reservoirs a. Surface area (1000 Ac) b. Storage (1000 Ac-Ft)

Possible Measures to Satisfy Water Resource Demands

<u>DEMAND</u>	<u>MEASURES</u>
Water Oriented Recreation (cont'd)	Change in design load of facilities Navigation improvement Beach erosion control Access Hiking trails (miles) Shoreline (miles)
Fishing	Open existing reservoirs New res. surf. area 1000 acres Maintain exist. habitat quality Meet W. Q. standards Land acquisition (1000 Ac) Provide access Install fishways (No.) Trout stocking
Wildlife	Small game stocking Wildlife habitat (1000 Ac) Wildlife access Increased management
Liquid Waste Disposal	Secondary treatment 85% Secondary treatment 90% Adv. waste treatment 95% Low flow augmentation (C.F.S.) Nutrient control Stormwater discharge control Thermo discharge control Acid mine drainage control Septic tank control Separate combined sewers Research
Flood Control	<u>Upstream</u>  Flood plain management (1000 Ac) Storage (1000 Ac-Ft) Channels (miles) Watershed management  <u>Mainstem</u>  Flood plain management (1000 Ac) Storage (1000 Ac-Ft) Levees & floodwalls (miles) Channels (miles) Pumping plants (No. & C.F.S.) Bank stabilization (miles) Dikes (No.)

Possible Measures to Satisfy Water Resource Demands

<u>DEMAND</u>	<u>MEASURES</u>
Drainage	Watershed management Channel improvement (miles)
Erosion	Land treatment (1000 Ac) Bank stabilization a. Revetment (miles) b. Dikes (No.)
Health Aspects	Insect control Legal measures
Visual and Cultural Environment	Lands: Purchase - Fee simple (1000 Ac) Leases (1000 Ac) Easements (1000 Ac) Deed restrictions Zoning (1000 Ac) Tax incentive - subsidy  Impoundments: Augment low flows (C.F.S.) Provide dilution flows (C.F.S.) Require higher waste-treatment standards (secondary or primary) Require adequate waste-disposal facilities Provide recreational facilities Provide wildlife facilities Require flood plain management (1000 Ac) Require reforestation programs (1000 Ac) Require watershed management programs
Legal	Water quality Zoning Control Interstate agreements Constitutional amendments International pacts Legislation Education Institutional constraints
Shore Protection	Sand fill (1000 Ac) Groins (No.) Seawall & Revetment (miles) Dunes Zoning Building codes Evacuation

LOWER MISSISSIPPI REGION

COMPREHENSIVE STUDY

ESTIMATED STUDY COST

ANNEX NO. 4

TABLE 1 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
FEDERAL AND NON-FEDERAL

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning	70.0	66.0	4.0		
2. Public relations activities	39.0	7.0	9.0	14.0	9.0
3. Study management	304.5	29.5	101.0	96.0	78.0
4. Studies and investigations (as applicable)	(2931.5)	(397.5)	(1056.0)	(1011.5)	(466.5)
a. Economic base	265.5	40.0	99.5	94.0	32.0
b. Climate, meteorology, and hydrology	187.0	27.0	87.0	60.0	13.0
c. Geology and groundwater	83.0	7.0	42.0	30.0	4.0
d. and e. Flood problems	406.5	26.0	180.5	153.0	47.0
f. Related land use and management	211.5	35.5	104.0	55.0	17.0
g. Related mineral resources	15.0	4.0	7.0	4.0	
h. Irrigation	40.0	4.0	12.0	24.0	
i. Land drainage	25.0	2.0	9.0	14.0	
j. Navigation	91.0	6.0	33.0	42.0	10.0
k. Municipal and industrial water supply	183.0	67.5	63.5	45.0	7.0
l. Water quality and pollution	174.5	54.5	67.0	45.0	8.0
m. Health aspects	48.0	9.0	16.0	19.0	4.0
n. Recreation	112.0	4.0	48.0	45.0	15.0
o. Coastal and estuarine	53.0	21.0	18.0	11.0	3.0
p. Aesthetic and cultural values	79.5	12.5	37.0	19.0	11.0
q. Fish and wildlife	199.0	50.0	102.0	36.0	11.0
r. Power	16.0	1.5	7.0	5.0	2.5
s. Sediment and erosion	73.0	18.0	33.0	18.0	4.0
t. Plan formulation	371.5	7.5	69.5	178.5	116.0
u. Legal and institutional	21.5	.5	3.0	10.0	8.0
v. Inventory of facilities	15.0		5.0	10.0	
w. Report preparation guidelines	261.0		13.0	94.0	154.0
5. Printing	51.0		2.5	14.0	34.5
6. Contingencies	149.0		42.5	59.5	47.0
Total - Federal	3545.0	500.0	1215.0	1195.0	635.0
Non-Federal States <u>/1</u>	324.5	36.5	125.0	104.0	59.0
Total Federal & Non-Federal	3869.5	536.5	1340.0	1299.0	694.0

/1 State costs are lump sum and are not distributed to study elements.

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
DEPARTMENT OF AGRICULTURE (Federal)

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning	19.0	17.0	2.0		
2. Public relations activities	4.0		1.0	2.0	1.0
3. Study management	71.0	10.0	22.0	20.0	19.0
4. Studies and investigations (as applicable)	(664.0)	(87.0)	(278.0)	(190.0)	(109.0)
a. Economic base	58.0	12.0	28.0	8.0	10.0
b. Climate, meteorology, and hydrology	14.0	2.0	7.0	5.0	
c. Geology and groundwater					
d. and e. Flood problems	133.0	20.0	71.0	30.0	12.0
f. Related land use and management	155.0	24.0	73.0	41.0	17.0
g. Related mineral resources					
h. Irrigation	38.0	4.0	11.0	23.0	
i. Land drainage	25.0	2.0	9.0	14.0	
j. Navigation	4.0			4.0	
k. Municipal and industrial water supply	6.0		3.0	3.0	
l. Water quality and pollution	11.0		4.0	7.0	
m. Health aspects					
n. Recreation	19.0	2.0	10.0	7.0	
o. Coastal and estuarine	2.0		2.0		
p. Aesthetic and cultural values	13.0		8.0	5.0	
q. Fish and wildlife	13.0	3.0	7.0	3.0	
r. Power					
s. Sediment and erosion	60.0	18.0	27.0	11.0	4.0
t. Plan formulation	66.0		16.0	21.0	29.0
u. Legal and institutional	2.0			1.0	1.0
v. Inventory of facilities					
w. Report preparation guidelines	45.0		2.0	7.0	36.0
5. Printing					
6. Contingencies	25.0		11.0	6.0	8.0
Total	783.0	114.0	314.0	218.0	137.0
Source of Funds:					
Direct appropriation	669.0		314.0	218.0	137.0
Transfer from Army	114.0	114.0			
Transfer from					
Total	783.0	114.0	314.0	218.0	137.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
DEPARTMENT OF AGRICULTURE (Federal)

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning	13.0	13.0			
2. Public relations activities	4.0		1.0	2.0	1.0
3. Study management	39.0	5.0	11.0	11.0	12.0
4. Studies and investigations (as applicable)	(395.0)	(59.0)	(186.0)	(93.0)	(57.0)
a. Economic base	5.0	1.0	4.0		
b. Climate, meteorology, and hydrology	10.0	2.0	5.0	3.0	
c. Geology and groundwater					
d. and e. Flood problems	107.0	17.0	57.0	23.0	10.0
f. Related land use and management	88.0	16.0	46.0	18.0	8.0
g. Related mineral resources					
h. Irrigation	17.0	1.0	8.0	8.0	
i. Land drainage	15.0	2.0	6.0	7.0	
j. Navigation					
k. Municipal and industrial water supply	6.0		3.0	3.0	
l. Water quality and pollution	7.0		4.0	3.0	
m. Health aspects					
n. Recreation	10.0	2.0	6.0	2.0	
o. Coastal and estuarine	2.0		2.0		
p. Aesthetic and cultural values	10.0		6.0	4.0	
q. Fish and wildlife	10.0	2.0	6.0	2.0	
r. Power					
s. Sediment and erosion	47.0	16.0	23.0	6.0	2.0
t. Plan formulation	35.0		10.0	11.0	14.0
u. Legal and institutional	2.0			1.0	1.0
v. Inventory of facilities					
w. Report preparation guidelines	24.0			2.0	22.0
5. Printing					
6. Contingencies	24.0		11.0	6.0	7.0
Total	475.0	77.0	209.0	112.0	77.0
Source of Funds:					
Direct appropriation	398.0		209.0	112.0	77.0
Transfer from Army	77.0	77.0			
Transfer from					
Total	475.0	77.0	209.0	112.0	77.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
Forest Service (Federal)  
DEPARTMENT OF AGRICULTURE (Federal)

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning	4.0	2.0	2.0		
2. Public relations activities					
3. Study management	22.0	3.0	8.0	7.0	4.0
4. Studies and investigations (as applicable)	(93.0)	(11.0)	(29.0)	(29.0)	(24.0)
a. Economic base	21.0	3.0	6.0	6.0	6.0
b. Climate, meteorology, and hydrology	4.0		2.0	2.0	
c. Geology and groundwater					
d. and e. Flood problems	9.0	1.0	4.0	2.0	2.0
f. Related land use and management	24.0	4.0	9.0	8.0	3.0
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply					
l. Water quality and pollution					
m. Health aspects					
n. Recreation	3.0		2.0	1.0	
o. Coastal and estuarine					
p. Aesthetic and cultural values	3.0		2.0	1.0	
q. Fish and wildlife	3.0	1.0	1.0	1.0	
r. Power					
s. Sediment and erosion	10.0	2.0	3.0	3.0	2.0
t. Plan formulation	5.0			2.0	3.0
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines	11.0			3.0	8.0
5. Printing					
6. Contingencies					
Total	119.0	16.0	39.0	36.0	28.0
Source of Funds:					
Direct appropriation	103.0		39.0	36.0	28.0
Transfer from Army	16.0	16.0			
Transfer from					
Total	119.0	16.0	39.0	36.0	28.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
Economic Research Service (Federal)  
DEPARTMENT OF AGRICULTURE

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning	2.0	2.0			
2. Public relations activities					
3. Study management	10.0	2.0	3.0	2.0	3.0
4. Studies and investigations (as applicable)	(176.0)	(17.0)	(63.0)	(68.0)	(28.0)
a. Economic base	32.0	8.0	18.0	2.0	4.0
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems	17.0	2.0	10.0	5.0	
f. Related land use and management	43.0	4.0	18.0	15.0	6.0
g. Related mineral resources					
h. Irrigation	21.0	3.0	3.0	15.0	
i. Land drainage	10.0		3.0	7.0	
j. Navigation	4.0			4.0	
k. Municipal and industrial water supply					
l. Water quality and pollution	4.0			4.0	
m. Health aspects					
n. Recreation	6.0		2.0	4.0	
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife					
r. Power					
s. Sediment and erosion	3.0		1.0	2.0	
t. Plan formulation	26.0		6.0	8.0	12.0
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines	10.0		2.0	2.0	6.0
5. Printing					
6. Contingencies	1.0				1.0
Total	189.0	21.0	66.0	70.0	32.0
Source of Funds:					
Direct appropriation	168.0		66.0	70.0	32.0
Transfer from Army	21.0	21.0			
Transfer from					
Total	189.0	21.0	66.0	70.0	32.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
MISSISSIPPI RIVER COMMISSION (Federal)

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning	35.5	33.5	2.0		
2. Public relations activities	17.0	1.0	2.0	7.0	7.0
3. Study management	186.0	9.0	65.0	64.0	48.0
4. Studies and investigations (as applicable)	(1367.5)	(195.5)	(414.0)	(520.0)	(248.0)
a. Economic base	107.5	9.5	38.0	44.0	16.0
b. Climate, meteorology, and hydrology	152.0	23.0	68.0	48.0	13.0
c. Geology and groundwater	13.0		5.0	8.0	
d. and e. Flood problems	252.0	4.0	97.0	116.0	35.0
f. Related land use and management					
g. Related mineral resources					
h. Irrigation	2.0		1.0	1.0	
i. Land drainage					
j. Navigation	80.0	3.0	31.0	36.0	10.0
k. Municipal and industrial water supply	90.0	50.0	23.0	13.0	4.0
l. Water quality and pollution	76.0	45.0	19.0	9.0	3.0
m. Health aspects	2.0		1.0	1.0	
n. Recreation	17.0		7.0	7.0	3.0
o. Coastal and estuarine	48.0	21.0	14.0	10.0	3.0
p. Aesthetic and cultural values	14.0		3.0	7.0	4.0
q. Fish and wildlife	116.0	38.0	62.0	13.0	3.0
r. Power	2.0			2.0	
s. Sediment and erosion	13.0		6.0	7.0	
t. Plan formulation	232.0	2.0	20.0	140.0	70.0
u. Legal and institutional	14.0		2.0	8.0	4.0
v. Inventory of facilities	15.0		5.0	10.0	
w. Report preparation guidelines	122.0		2.0	40.0	80.0
5. Printing	37.0		1.0	6.0	30.0
6. Contingencies	85.0		20.0	40.0	25.0
Total	1728.0	239.0	494.0	637.0	358.0
Source of Funds:					
Direct appropriation	1728.0	239.0	494.0	637.0	358.0
Transfer from					
Transfer from					
Total	1728.0	239.0	494.0	637.0	358.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
DEPARTMENT OF COMMERCE (Federal)

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities					
3. Study management	11.0	4.0	3.0	2.0	2.0
4. Studies and investigations (as applicable)	138.0	36.0	27.0	60.0	15.0
a. Economic base	58.0	15.0	5.0	32.0	6.0
b. Climate, meteorology, and hydrology	5.0	1.0	2.0	2.0	
c. Geology and groundwater					
d. and e. Flood problems	6.5	1.0	2.5	3.0	
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation	7.0	3.0	2.0	2.0	
k. Municipal and industrial water supply	32.5	11.0	5.5	14.0	2.0
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife	26.0	5.0	10.0	5.0	6.0
r. Power					
s. Sediment and erosion					
t. Plan formulation					
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines	3.0			2.0	1.0
5. Printing					
6. Contingencies	1.0				1.0
Total	150.0	40.0	30.0	62.0	18.0
Source of Funds:					
Direct appropriation	80.0			62.0	18.0
Transfer from Army	70.0	40.0	30.0		
Transfer from					
Total	150.0	40.0	30.0	62.0	18.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
BUREAU OF DOMESTIC COMMERCE (Federal)  
DEPARTMENT OF COMMERCE

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities					
3. Study management					
4. Studies and investigations	(32.5)	(11.0)	(5.5)	(14.0)	(2.0)
(as applicable)					
a. Economic base					
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply	32.5	11.0	5.5	14.0	2.0
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife					
r. Power					
s. Sediment and erosion					
t. Plan formulation					
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines					
5. Printing					
6. Contingencies					
Total	32.5	11.0	5.5	14.0	2.0
Source of Funds:					
Direct appropriation	16.0			14.0	2.0
Transfer from Army	16.5	11.0	5.5		
Transfer from					
Total	32.5	11.0	5.5	14.0	2.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (Federal)  
DEPARTMENT OF COMMERCE

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities					
3. Study management	4.0	1.0	1.0	1.0	1.0
4. Studies and investigations	(13.5)	(2.0)	(4.5)	(6.0)	(1.0)
(as applicable)					
a. Economic base					
b. Climate, meteorology, and hydrology	5.0	1.0	2.0	2.0	
c. Geology and groundwater					
d. and e. Flood problems	6.5	1.0	2.5	3.0	
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply					
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife					
r. Power					
s. Sediment and erosion					
t. Plan formulation					
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines	2.0			1.0	1.0
5. Printing					
6. Contingencies					
Total	17.5	3.0	5.5	7.0	2.0
Source of Funds:					
Direct appropriation	9.0			7.0	2.0
Transfer from Army	8.5	3.0	5.5		
Transfer from					
Total	17.5	3.0	5.5	7.0	2.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
OFFICE OF BUSINESS ECONOMICS (Federal)  
DEPARTMENT OF COMMERCE

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities					
3. Study management					
4. Studies and investigations	(58.0)	(15.0)	(5.0)	(32.0)	(6.0)
(as applicable)					
a. Economic base	58.0	15.0	5.0	32.0	6.0
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply					
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife					
r. Power					
s. Sediment and erosion					
t. Plan formulation					
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines					
5. Printing					
6. Contingencies					
Total	58.0	15.0	5.0	32.0	6.0
Source of Funds:					
Direct appropriation	38.0			32.0	6.0
Transfer from Army	20.0	15.0	5.0		
Transfer from					
Total	58.0	15.0	5.0	32.0	6.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
MARITIME ADMINISTRATION (Federal)  
DEPARTMENT OF COMMERCE

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities					
3. Study management	7.0	3.0	2.0	1.0	1.0
4. Studies and investigations (as applicable)	(8.0)	(3.0)	(2.0)	(3.0)	
a. Economic base					
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation	7.0	3.0	2.0	2.0	
k. Municipal and industrial water supply					
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife					
r. Power					
s. Sediment and erosion					
t. Plan formulation					
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines	1.0			1.0	
5. Printing					
6. Contingencies	1.0				1.0
Total	16.0	6.0	4.0	4.0	2.0
Source of Funds:					
Direct appropriation	6.0			4.0	2.0
Transfer from CE	10.0	6.0	4.0		
Transfer from					
Total	16.0	6.0	4.0	4.0	2.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
NATIONAL MARINE FISHERIES SERVICE, NOAA (Federal)  
DEPARTMENT OF COMMERCE

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities					
3. Study management					
4. Studies and investigations	(26.0)	(5.0)	(10.0)	(5.0)	(6.0)
(as applicable)					
a. Economic base					
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply					
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife	26.0	5.0	10.0	5.0	6.0
r. Power					
s. Sediment and erosion					
t. Plan formulation					
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines					
5. Printing					
6. Contingencies					
Total	26.0	5.0	10.0	5.0	6.0
Source of Funds:					
Direct appropriation	11.0			5.0	6.0
Transfer from Army	15.0	5.0	10.0		
Transfer from					
Total	26.0	5.0	10.0	5.0	6.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
DEPARTMENT OF INTERIOR (Federal)

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning	8.0	8.0			
2. Public relations activities					
3. Study management	11.0	3.0	2.0	4.0	2.0
4. Studies and investigations (as applicable)	(341.0)	(36.0)	(143.0)	(108.0)	(54.0)
a. Economic base	10.5	2.0	7.5	1.0	
b. Climate, meteorology, and hydrology					
c. Geology and groundwater	70.0	7.0	37.0	22.0	4.0
d. and e. Flood problems	5.0	1.0	2.0	2.0	
f. Related land use and management	3.5	0.5	2.0	1.0	
g. Related mineral resources	15.0	4.0	7.0	4.0	
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply	3.5	0.5	2.0	1.0	
l. Water quality and pollution	5.5	0.5	2.0	3.0	
m. Health aspects					
n. Recreation	71.0	2.0	27.0	30.0	12.0
o. Coastal and estuarine	3.0		2.0	1.0	
p. Aesthetic and cultural values	52.5	12.5	26.0	7.0	7.0
q. Fish and wildlife	27.5	1.5	13.0	11.0	2.0
r. Power	7.0	1.5	4.5	1.0	
s. Sediment and erosion					
t. Plan formulation	20.0	3.0	4.0	6.0	7.0
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines	47.0		7.0	18.0	22.0
5. Printing	5.0		1.0	1.0	3.0
6. Contingencies	16.0		6.0	3.0	7.0
Total	381.0	47.0	152.0	116.0	66.0
Source of Funds:					
Direct appropriation					
Transfer from Army	381.0	47.0	152.0	116.0	66.0
Transfer from					
Total	381.0	47.0	152.0	116.0	66.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
BUREAU OF OUTDOOR RECREATION (Federal)  
DEPARTMENT OF INTERIOR

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning	3.0	3.0			
2. Public relations activities					
3. Study management	1.0	1.0			
4. Studies and investigations (as applicable)	(115.0)	(8.0)	(41.0)	(45.0)	(21.0)
a. Economic base	1.5	0.5	1.0		
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems	2.5	0.5	1.0	1.0	
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply	2.5	0.5	1.0	1.0	
l. Water quality and pollution	2.5	0.5	1.0	1.0	
m. Health aspects					
n. Recreation	71.0	2.0	27.0	30.0	12.0
o. Coastal and estuarine	3.0		2.0	1.0	
p. Aesthetic and cultural values	2.5	0.5	1.0	1.0	
q. Fish and wildlife	2.5	0.5	1.0	1.0	
r. Power					
s. Sediment and erosion					
t. Plan formulation	14.0	2.0	3.0	4.0	5.0
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines	8.0		1.0	3.0	4.0
5. Printing	3.0			1.0	2.0
6. Contingencies	3.0				3.0
Total	125.0	12.0	41.0	46.0	26.0
Source of Funds:					
Direct appropriation					
Transfer from	125.0	12.0	41.0	46.0	26.0
Transfer from					
Total	125.0	12.0	41.0	46.0	26.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
BUREAU OF SPORT FISHERIES AND WILDLIFE (Federal)  
DEPARTMENT OF INTERIOR

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning	4.0	4.0			
2. Public relations activities					
3. Study management	7.0	2.0	2.0	2.0	1.0
4. Studies and investigations (as applicable)	(39.0)	(1.0)	(17.0)	(15.0)	(6.0)
a. Economic base					
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management	1.0		1.0		
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply					
l. Water quality and pollution	2.0		1.0	1.0	
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife	25.0	1.0	12.0	10.0	2.0
r. Power					
s. Sediment and erosion					
t. Plan formulation					
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines	11.0		3.0	4.0	4.0
5. Printing	1.0				1.0
6. Contingencies					
Total	51.0	7.0	19.0	17.0	8.0
Source of Funds:					
Direct appropriation					
Transfer from Army	51.0	7.0	19.0	17.0	8.0
Transfer from					
Total	51.0	7.0	19.0	17.0	8.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
BUREAU OF MINES (Federal)  
DEPARTMENT OF INTERIOR

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities					
3. Study management					
4. Studies and investigations	(26.0)	(5.0)	(15.0)	(6.0)	
(as applicable)					
a. Economic base	8.0	1.0	6.0	1.0	
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management					
g. Related mineral resources	15.0	4.0	7.0	4.0	
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply	1.0		1.0		
l. Water quality and pollution	1.0			1.0	
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values	1.0		1.0		
q. Fish and wildlife					
r. Power					
s. Sediment and erosion					
t. Plan formulation					
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines					
5. Printing					
6. Contingencies	8.0		4.0	1.0	3.0
Total	34.0	5.0	19.0	7.0	3.0
Source of Funds:					
Direct appropriation					
Transfer from Army	34.0	5.0	19.0	7.0	3.0
Transfer from					
Total	34.0	5.0	19.0	7.0	3.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
NATIONAL PARK SERVICE (Federal)  
DEPARTMENT OF INTERIOR

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning	1.0	1.0			
2. Public relations activities					
3. Study management					
4. Studies and investigations (as applicable)	(54.0)	(12.0)	(27.0)	(7.0)	(8.0)
a. Economic base					
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply					
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values	49.0	12.0	24.0	6.0	7.0
q. Fish and wildlife					
r. Power					
s. Sediment and erosion					
t. Plan formulation					
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines	5.0		3.0	1.0	1.0
5. Printing	1.0		1.0		
6. Contingencies	5.0		2.0	2.0	1.0
Total	61.0	13.0	30.0	9.0	9.0
Source of Funds:					
Direct appropriation					
Transfer from Army	61.0	13.0	30.0	9.0	9.0
Transfer from					
Total	61.0	13.0	30.0	9.0	9.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
GEOLOGICAL SURVEY (Federal)  
DEPARTMENT OF INTERIOR

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities					
3. Study management	3.0			2.0	1.0
4. Studies and investigations (as applicable)	(95.0)	(7.0)	(37.0)	(33.0)	(18.0)
a. Economic base					
b. Climate, meteorology, and hydrology					
c. Geology and groundwater	70.0	7.0	37.0	22.0	4.0
d. and e. Flood problems					
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply					
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife					
r. Power					
s. Sediment and erosion					
t. Plan formulation	2.0			1.0	1.0
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines	23.0			10.0	13.0
5. Printing					
6. Contingencies					
Total	98.0	7.0	37.0	35.0	19.0
Source of Funds:					
Direct appropriation					
Transfer from Army	98.0	7.0	37.0	35.0	19.0
Transfer from					
Total	98.0	7.0	37.0	35.0	19.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
SOUTHWESTERN POWER ADMINISTRATION (Federal)  
DEPARTMENT OF INTERIOR

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities					
3. Study management					
4. Studies and investigations (as applicable)	(12.0)	(3.0)	(6.0)	(2.0)	(1.0)
a. Economic base	1.0	0.5	0.5		
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply					
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife					
r. Power	7.0	1.5	4.5	1.0	
s. Sediment and erosion					
t. Plan formulation	4.0	1.0	1.0	1.0	1.0
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines					
5. Printing					
6. Contingencies					
Total	12.0	3.0	6.0	2.0	1.0
Source of Funds:					
Direct appropriation					
Transfer from Army	12.0	3.0	6.0	2.0	1.0
Transfer from					
Total	12.0	3.0	6.0	2.0	1.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE (Federal)

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities					
3. Study management					
4. Studies and investigations					
(as applicable)					
a. Economic base					
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply					
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife					
r. Power					
s. Sediment and erosion					
t. Plan formulation					
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines					
5. Printing					
6. Contingencies					
 Total					
Source of Funds:					
Direct appropriation					
Transfer from					
Transfer from					
 Total					

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (Federal)

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning	3.5	3.5			
2. Public relations activities					
3. Study management					
4. Studies and investigations (as applicable)	(105.5)	(11.5)	(70.0)	(23.0)	(1.0)
a. Economic base	21.0		15.0	6.0	
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems	10.0		8.0	2.0	
f. Related land use and management	27.0	8.0	15.0	4.0	
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply	29.5	3.5	18.0	7.0	1.0
l. Water quality and pollution					
m. Health aspects					
n. Recreation	5.0		4.0	1.0	
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife					
r. Power					
s. Sediment and erosion					
t. Plan formulation	10.0		10.0		
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines	3.0			3.0	
5. Printing					
6. Contingencies					
<b>Total</b>	<b>109.0</b>	<b>15.0</b>	<b>70.0</b>	<b>23.0</b>	<b>1.0</b>
Source of Funds:					
Direct appropriation	94.0		70.0	23.0	1.0
Transfer from Army	15.0	15.0			
Transfer from					
<b>Total</b>	<b>109.0</b>	<b>15.0</b>	<b>70.0</b>	<b>23.0</b>	

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
ENVIRONMENTAL PROTECTION AGENCY (Federal)

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning	4.0	4.0			
2. Public relations activities	15.0	3.0	6.0	5.0	1.0
3. Study management	25.5	3.5	9.0	6.0	7.0
4. Studies and investigations (as applicable)	(299.5)	(31.5)	(128.0)	(105.0)	(35.0)
a. Economic base	10.5	1.5	6.0	3.0	
b. Climate, meteorology, and hydrology	16.0	1.0	10.0	5.0	
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management	26.0	3.0	14.0	9.0	
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply	21.5	2.5	12.0	7.0	
l. Water quality and pollution	82.0	9.0	42.0	26.0	5.0
m. Health aspects	46.0	9.0	15.0	18.0	4.0
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife	16.5	2.5	10.0	4.0	
r. Power					
s. Sediment and erosion					
t. Plan formulation	39.5	2.5	18.0	10.0	9.0
u. Legal and institutional	5.5	.5	1.0	1.0	3.0
v. Inventory of facilities					
w. Report preparation guidelines	36.0			22.0	14.0
5. Printing	7.0			6.0	1.0
6. Contingencies	19.0		5.0	9.0	5.0
Total	370.0	42.0	148.0	131.0	49.0
Source of Funds:					
Direct appropriation	328.0		148.0	131.0	49.0
Transfer from Army	42.0	42.0			
Transfer from					
Total	370.0	42.0	148.0	131.0	49.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
FEDERAL POWER COMMISSION (Federal)

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities	3.0	3.0			
3. Study management					
4. Studies and investigations (as applicable)	(16.0)		(6.0)	(5.5)	(4.5)
a. Economic base					
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply					
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife					
r. Power	7.0		2.5	2.0	2.5
s. Sediment and erosion					
t. Plan formulation	4.0		1.5	1.5	1.0
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines	5.0		2.0	2.0	1.0
5. Printing	2.0		0.5	1.0	0.5
6. Contingencies	3.0		0.5	1.5	1.0
Total	24.0	3.0	7.0	8.0	6.0
Source of Funds:					
Direct appropriation	21.0		7.0	8.0	6.0
Transfer from Army	3.0	3.0			
Transfer from					
Total	24.0	3.0	7.0	8.0	6.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
State of Arkansas (non-Federal)

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities					
3. Study management					
4. Studies and investigations (as applicable)					
a. Economic base					
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply					
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife					
r. Power					
s. Sediment and erosion					
t. Plan formulation					
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines					
5. Printing					
6. Contingencies					
Total	60.0	10.0	20.0	20.0	10.0
Source of Funds:					
Direct appropriation - State	60.0	10.0	20.0	20.0	10.0
Transfer from					
Transfer from					
Total	60.0	10.0	20.0	20.0	10.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
State of Kentucky (non-Federal)

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities					
3. Study management					
4. Studies and investigations (as applicable)					
a. Economic base					
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply					
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife					
r. Power					
s. Sediment and erosion					
t. Plan formulation					
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines					
5. Printing					
6. Contingencies					
Total	15.0	2.0	5.0	5.0	3.0
Source of Funds:					
Direct appropriation - State	15.0	2.0	5.0	5.0	3.0
Transfer from					
Transfer from					
Total	15.0	2.0	5.0	5.0	3.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
State of Illinois (non-Federal)

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities					
3. Study management					
4. Studies and investigations (as applicable)					
a. Economic base					
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply					
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife					
r. Power					
s. Sediment and erosion					
t. Plan formulation					
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines					
5. Printing					
6. Contingencies					
Total	65.0	5.0	30.0	20.0	10.0
Source of Funds:					
Direct appropriation - State	65.0	5.0	30.0	20.0	10.0
Transfer from					
Transfer from					
Total	65.0	5.0	30.0	20.0	10.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
State of Louisiana (non-Federal)

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities					
3. Study management					
4. Studies and investigations (as applicable)					
a. Economic base					
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply					
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife					
r. Power					
s. Sediment and erosion					
t. Plan formulation					
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines					
5. Printing					
6. Contingencies					
<b>Total</b>	<b>75.0</b>	<b>10.0</b>	<b>25.0</b>	<b>25.0</b>	<b>15.0</b>
Source of Funds:					
Direct appropriation - State	75.0	10.0	25.0	25.0	15.0
Transfer from					
Transfer from					
<b>Total</b>	<b>75.0</b>	<b>10.0</b>	<b>25.0</b>	<b>25.0</b>	<b>15.0</b>

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
State of Mississippi (non-Federal)

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities					
3. Study management					
4. Studies and investigations (as applicable)					
a. Economic base					
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply					
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife					
r. Power					
s. Sediment and erosion					
t. Plan formulation					
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines					
5. Printing					
6. Contingencies					
Total	45.0	5.0	15.0	15.0	10.0
Source of Funds:					
Direct appropriation - State	45.0	5.0	15.0	15.0	10.0
Transfer from					
Transfer from					
Total	45.0	5.0	15.0	15.0	10.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
State of Missouri (non-Federal)

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities					
3. Study management					
4. Studies and investigations (as applicable)					
a. Economic base					
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply					
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife					
r. Power					
s. Sediment and erosion					
t. Plan formulation					
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines					
5. Printing					
6. Contingencies					
<b>Total</b>	30.0	2.0	15.0	9.0	4.0
<b>Source of Funds:</b>					
Direct appropriation - State	30.0	2.0	15.0	9.0	4.0
Transfer from					
Transfer from					
<b>Total</b>	30.0	2.0	15.0	9.0	4.0

TABLE 2 - ESTIMATES OF COST FOR MAJOR ELEMENTS BY AGENCY

LOWER MISSISSIPPI REGION  
State of Tennessee - (non-Federal)

(In \$1,000)

Study elements	Total cost	Fiscal year costs			
		1970	1971	1972	1973
1. Preliminary planning					
2. Public relations activities					
3. Study management					
4. Studies and investigations (as applicable)					
a. Economic base					
b. Climate, meteorology, and hydrology					
c. Geology and groundwater					
d. and e. Flood problems					
f. Related land use and management					
g. Related mineral resources					
h. Irrigation					
i. Land drainage					
j. Navigation					
k. Municipal and industrial water supply					
l. Water quality and pollution					
m. Health aspects					
n. Recreation					
o. Coastal and estuarine					
p. Aesthetic and cultural values					
q. Fish and wildlife					
r. Power					
s. Sediment and erosion					
t. Plan formulation					
u. Legal and institutional					
v. Inventory of facilities					
w. Report preparation guidelines					
5. Printing					
6. Contingencies					
Total	34.5	2.5	15.0	10.0	7.0
Source of Funds:					
Direct appropriation - State	34.5	2.5	15.0	10.0	7.0
Transfer from					
Transfer from					
Total	34.5	2.5	15.0	10.0	7.0

LOWER MISSISSIPPI REGION  
COMPREHENSIVE STUDY

DIRECTORY

ANNEX NO. 5

LOWER MISSISSIPPI REGION COMPREHENSIVE STUDY

DIRECTORY

Table of Contents

Board of Engineers for Rivers and Harbors. . . . .	2
Department of Agriculture. . . . .	3
Department of the Army . . . . .	2
Department of Commerce . . . . .	4
Environmental Protection Agency. . . . .	6
Federal Power Commission . . . . .	7
Department of Health, Education and Welfare. . . . .	8
Department of Housing and Urban Development. . . . .	9
Department of Interior . . . . .	10
Department of Labor. . . . .	11
Mississippi River Commission . . . . .	12
Department of Transportation . . . . .	13
Water Resources Council. . . . .	2

States:

Arkansas . . . . .	14
Illinois . . . . .	15
Kentucky . . . . .	16
Louisiana. . . . .	17
Mississippi. . . . .	19
Missouri . . . . .	20
Tennessee. . . . .	21

LOWER MISSISSIPPI REGION COMPREHENSIVE STUDY

DIRECTORY

Water Resources Council

Mr. Don Maughan  
Executive Director  
Water Resources Council  
Suite 900  
1025 Vermont Avenue, N. W.  
Washington, D. C. 20005

Department of the Army

Department of the Army  
LTC R. R. Werner - ENGOW-C  
Office of Chief of Engineers  
Washington, D. C. 20314

Department of the Army  
Office of Chief of Engineers  
ATTN: Mr. B. Joseph Tofani - ENGOW-R  
Washington, D. C. 20314

Department of the Army  
Office of Chief of Engineers  
ATTN: Mr. F. Swiggard - ENGOW-PI  
Washington, D. C. 20314

Mr. Howard R. Bare  
U. S. Army Division, Southwestern  
1114 Commerce Street  
Room 425  
Dallas, Texas 75202

Mr. Herbert B. Eagon  
Water Resources Coordinator  
U. S. Army Division, Ohio River  
P. O. Box 1159  
Cincinnati, Ohio 45201

Board of Engineers for Rivers & Harbors

Mr. Dean C. Pappas  
Chief  
Professional Development Division  
Board of Engineers for Rivers and Harbors  
Second and Q Streets, S. W.  
Washington, D. C. 20315

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

Department of Agriculture:

Mr. M. B. Allen  
Economic Research Service, USDA  
P. O. Box 3319  
Jackson, Mississippi 39207  
(601) 948-7821 Ext 431

Dr. Neil Cook  
Southern Resources Group Leader  
Natural Resources Economic Division  
315 Post Office Building  
Little Rock, Arkansas 72201  
(501) 372-4361 Ext 5501

Mr. M. E. Cribbs  
Soil Conservation Service  
P. O. Box 3319  
Jackson, Mississippi 39207  
(601) 948-7821 Ext 431

Mr. W. L. Heard  
State Conservationist  
Soil Conservation Service, USDA  
P. O. Box 610  
Jackson, Mississippi 39205  
(601) 948-7821 Ext 406

Mr. James Jenkins  
Soil Conservation Service  
P. O. Box 3319  
Jackson, Mississippi 39207  
(601) 948-7821 Ext 431

Mr. Jack Johnson  
Soil Conservation Service  
543 Post Office & Courthouse Building  
Little Rock, Arkansas 72201  
(501) 372-5462

Mr. B. Ted Kuntz  
Economic Research Service  
P. O. Box 3319  
Jackson, Mississippi 39207  
(601) 948-7821 Ext 431

Mr. John Langston  
Soil Conservation Service  
P. O. Box 3319  
Jackson, Mississippi 39207  
(601) 948-7821 Ext 431

Mr. L. C. Long  
Forest Service, USDA  
P. O. Box 3319  
Jackson, Mississippi 39207  
(601) 948-7821 Ext 431

Mr. Paul McGowen  
Soil Conservation Service  
P. O. Box 1630  
Alexandria, Louisiana 71301  
(318) 445-6611

Mr. Charles Patton  
Soil Conservation Service  
5119 Summer Avenue  
Memphis, Tennessee 38122  
(901) 683-3593

Mr. Carter P. Qualls  
Forest Service, USDA  
50 Seventh Street, N. E.  
Atlanta, Georgia 30323  
(404) 526-3776

Mr. E. I. Swensen  
Forest Service, USDA  
P. O. Box 3319  
Jackson, Mississippi 39207  
(601) 948-7821 Ext 431

Mr. R. H. Wells  
Soil Conservation Service  
P. O. Box 3319  
Jackson, Mississippi 39207  
(601) 948-7821

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

Department of Commerce:

Mr. E. L. Arnold  
National Marine Fisheries Service, NOAA  
44 First Avenue, South  
St. Petersburg, Florida 33701  
(813) 893-3144

Mr. Donald R. Baker  
Water Resources Coordinator  
Department of Commerce, NOAA  
6010 Executive Blvd.  
Rockwell, Maryland 20852  
(301) 496-8817

Mr. R. Brewer  
Water Resources & Engr. Svs. Adm.  
Bureau of Domestic Commerce  
U. S. Department of Commerce  
Washington, D. C. 20230  
(202) 967-3306

Mr. A. F. Brown  
Special Assistant to the  
Gulf Coast Director  
Maritime Administration  
U. S. Department of Commerce  
P. O. Box 52948  
New Orleans, Louisiana 70150  
(504) 527-6544

Dr. George P. Cressman  
Director  
National Weather Service, NOAA  
U. S. Department of Commerce  
Silver Spring, Maryland 20910

Mr. Henry DeGraff  
Chief, Service Branch  
Office of Business Economics  
U. S. Department of Commerce  
Washington, D. C. 20230  
(202) 343-8788

Mr. Natale D'oria  
Director, Budget and Finance Division  
Office of Administration  
Domestic and International Business  
U. S. Department of Commerce  
Washington, D. C. 20230

Mr. Robert E. Graham, Jr.  
Chief, Regional Economics Division  
Office of Business Economics  
U. S. Department of Commerce  
Washington, D. C. 20230  
(202) 783-9200

Mr. W. J. Heneghan  
Chief, Office of Budget  
Maritime Administration  
Domestic and International Business  
U. S. Department of Commerce  
Washington, D. C. 20235

Mr. W. E. Hiatt  
Associate Director  
National Weather Service, NOAA  
Silver Spring, Maryland 20910  
(301) 495-2265

Mr. E. M. Hockman  
Gulf Coast Director  
Maritime Administration  
701 Loyola Avenue  
New Orleans, Louisiana 70113

Mr. K. L. Kollar  
Director  
Water Resources and Engr. Serv. Div.  
Bureau of Domestic Commerce  
U. S. Department of Commerce  
Washington, D. C. 20230  
(202) 783-9200

Mr. J. P. McCallister  
Regional Hydrologist  
National Weather Service, NOAA  
Southern Region  
Federal Agencies Building  
819 Taylor Street  
Fort Worth, Texas 76102  
(817) 334-2675

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

Department of Commerce:

Mr. Millard Neptune  
Regional Director  
Economic Development Administration  
702 Colorado Street  
Austin, Texas 78701  
(512) 475-5661

Mr. R. L. Schuler  
National Marine Fisheries Service, NOAA  
5 Research Drive  
Ann Arbor, Michigan 48103  
(313) 663-8456

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

Environmental Protection Agency:

Mr. Ralph Austin  
Environmental Protection Agency, WQO  
Robert S. Kerr Water Research Center  
P. O. Box 1198  
Ada, Oklahoma 74820  
(405) 322-8800

Mr. M. DeVon Bogue  
Regional Director  
Division of Water Hygiene, WQO  
Environmental Protection Agency  
50 Seventh Street, N. E.  
Atlanta, Georgia 30323  
(404) 526-3454

Mr. J. P. Cating  
Environmental Protection Agency, WQO  
Third Floor  
1402 Elm Street  
Dallas, Texas 75202  
(214) 749-2625

Mr. W. R. Greene  
Environmental Protection Agency, WQO  
Third Floor  
1402 Elm Street  
Dallas, Texas 75202  
(214) 749-2625

Mr. T. P. Harrison  
Third Floor  
1402 Elm Street  
Dallas, Texas 75202  
(214) 749-2625

Mr. Charles Hembree  
Environmental Protection Agency, WQO  
Third Floor  
1402 Elm Street  
Dallas, Texas 75202  
(214) 749-2625

Mr. Gary D. Hutchinson  
Water Hygiene Representative,  
Region IV  
Division of Water Hygiene, WQO  
Room 404 50 Seventh Street, N.E.  
Atlanta, Georgia 30323  
(404) 526-5452

Mr. K. Kirkpatrick  
Environmental Protection Agency, WQO  
Third Floor  
1402 Elm Street  
Dallas, Texas 75202  
(214) 749-2625

Mr. Bill V. McFarland  
Environmental Protection Agency  
1114 Commerce Street  
Dallas, Texas 75202

Mr. Warren Norris, Jr.  
Division of Water Hygiene, WQO  
Environmental Protection Agency  
Room 404 50 Seventh Street, N.E.  
Atlanta, Georgia 30323

Mr. Roy W. Ryling  
Environmental Protection Agency  
1402 Elm Street  
Dallas, Texas 75202  
(214) 749-2625

Mr. H. D. Smith  
Environmental Protection Agency  
Third Floor  
1402 Elm Street  
Dallas, Texas 75202  
(214) 749-2625

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

Federal Power Commission:

Mr. Donald L. Martin  
Federal Power Commission, Regional Office  
Federal Office Building  
819 Taylor Street  
Fort Worth, Texas 76102  
(817) 334-2631

Mr. R. E. McKee  
Federal Power Commission, Regional Office  
Federal Office Building  
819 Taylor Street  
Fort Worth, Texas 76102  
(817) 334-2634

Mr. George E. Townsend  
Federal Power Commission, Regional Office  
Federal Office Building  
819 Taylor Street  
Fort Worth, Texas 76102  
(817) 334-2633

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

Department of Health, Education, and Welfare:

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

Department of Housing and Urban Development:

Mr. Clyde Emmons  
Assistant Director  
Community Services Division  
Department of Housing and  
Urban Development  
Federal Office Building  
Fort Worth, Texas 76102  
(817) 334-3325

Mr. W. R. Yerkes  
Planning & Workable Program Officer  
Metropolitan Planning & Development  
Federal Office Building  
818 Taylor Street  
Fort Worth, Texas 76102  
(817) 334-2739

Mr. Truman Goins  
Water Resources Staff Engineer  
Water Resources Division  
Metropolitan Development  
Washington, D. C. 20410  
(202) 755-5983

Mr. R. Hawkins  
Department of HUD  
Federal Office Building  
819 Taylor Street  
Fort Worth, Texas 76102  
(817) 334-3325

Mr. Glen Woodard  
Department of HUD  
Peachtree-Seventh Building  
Atlanta, Georgia 30323  
(404) 526-5583

Mr. Travis W. Miller  
Assistant Regional Administrator  
Metropolitan Planning & Development  
Federal Office Building  
818 Taylor Street  
Fort Worth, Texas 76102  
(817) 334-2739

Mr. D. Singletary  
Department of HUD  
Peachtree-Seventh Building  
Atlanta, Georgia 30323  
(404) 526-5583

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

Department of Interior:

Mr. Paul D. Adams  
Bureau of Outdoor Recreation  
810 New Walton Building  
Atlanta, Georgia 30303  
(404) 526-6378

Mr. L. E. Carroon  
Geological Survey  
430 Bounds Street  
Jackson, Mississippi 39206  
(601) 948-7821 Ext 326

Mr. Gladney G. Davidson  
Bureau of Outdoor Recreation  
810 New Walton Building  
Atlanta, Georgia 30303  
(404) 526-6378

Mr. R. E. Eichhorn  
Bureau of Sport Fisheries & Wildlife  
Merchants National Bank Bldg., Rm 409  
Vicksburg, Mississippi 39180  
(601) 638-1891

Mr. V. W. Flickinger  
National Park Service  
P. O. Box 10008  
Richmond, Virginia 23240  
(703) 782-2682

Mr. Malcolm D. Hale  
Geological Survey  
Suite 212  
2222 Schuetz Road  
St. Louis, Missouri 63141  
(314) 268-7224

Mr. W. C. Henkes  
Intermountain Field Operation Center  
Bureau of Mines  
Denver Federal Center, Bldg. 20  
Denver, Colorado 80225  
(303) 233-8294

Mr. A. J. Hickerson  
Southwestern Power Administration  
P. O. Drawer 1619  
Tulsa, Oklahoma 74101  
(918) 584-7423

Mr. R. R. Meyer  
Geological Survey  
6554 Florida Blvd.  
Baton Rouge, Louisiana 70806  
(504) 348-4281

Mr. W. T. Olds  
Bureau of Sport Fisheries & Wildlife  
Peachtree-Seventh Bldg.  
Atlanta, Georgia 30323  
(404) 526-5094

Mr. K. B. Schroeder  
Department of Interior  
517 Gold Avenue, S. W.  
Room 4030, Federal Building  
Albuquerque, New Mexico 87101  
(505) 843-2838

Mr. D. P. Shoup  
Department of Interior  
Office of the Secretary  
Southwest Region  
517 Gold Avenue, S. W.  
Room 4030, Federal Building  
Albuquerque, New Mexico 87101  
(505) 843-2838

Mr. H. C. Stewart  
Intermountain Field Operation Center  
Bureau of Mines  
Denver Federal Center Bldg. 20  
Denver, Colorado 80225  
(303) 233-6973

Mr. Sam E. Taylor  
Office of Solicitor, Tulsa Region  
P. O. Box 3156  
Tulsa, Oklahoma 74101  
(918) 584-7504

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

Department of Labor:

Mr. Jack Strickland  
Bureau of Statistics  
U. S. Department of Labor  
Room 334  
417 North Akard  
Dallas, Texas 75201  
(214) 749-3641

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

Mississippi River Commission:

MG A. P. Rollins, Jr.  
President  
Mississippi River Commission  
P. O. Box 80  
Vicksburg, Mississippi 39180  
(601) 636-6201

Mr. J. T. Pegg  
Chief, Planning Division  
(601) 636-6229

Mr. Fred Bayley III  
Asst Chief, Planning Division  
(601) 636-6306

Mr. R. B. Cox  
Chief  
Policy & Long Range Planning Branch  
(601) 636-6383

Mr. T. R. Campbell  
Assistant Chief  
Policy & Long Range Planning Branch  
(601) 636-6494

Dr. W. T. Hicks  
Chief, Economics Branch  
(601) 636-6387

Dr. H. R. Gardner  
Economics Branch  
(601) 636-6386

Mr. C. H. Harris  
Chief  
Environmental Resources Branch  
(601) 636-6285

Mr. W. L. O'Bannon  
Policy & Long Range Planning Branch  
(601) 636-6606

Mr. V. C. Ahlrich  
U. S. Army Engineer District  
Vicksburg  
P. O. Box 60  
Vicksburg, Mississippi 39180  
(601) 636-6548

Mr. F. M. Chatry  
U. S. Army Engineer District  
New Orleans  
P. O. Box 60267  
New Orleans, Louisiana 70160  
(504) 865-1288

Mr. David Wolfe  
U. S. Army Engineer District  
Memphis  
688 Federal Office Building  
Memphis, Tennessee 38103  
(901) 534-3855

Mr. C. B. O'Connell  
U. S. Army Engineer District  
New Orleans  
P. O. Box 60267  
New Orleans, Louisiana 70160  
(504) 865-1373

Mr. R. C. Turner  
U. S. Army Engineer District  
Vicksburg  
P. O. Box 60  
Vicksburg, Mississippi 39180  
(601) 636-6480

Mr. R. A. Buisson  
U. S. Army Engineer District  
New Orleans  
P. O. Box 60267  
New Orleans, Louisiana 70160  
(504) 865-1225

Waterways Experiment Station:

Dr. Roger T. Saucier  
Research Geographer  
Geology Branch, Soils Division  
Waterways Experiment Station  
P. O. Box 631  
Vicksburg, Mississippi 39180  
(601) 636-3111 Ext 2445

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

Department of Transportation:

Rear Admiral R. Y. Edwards, USCG  
Chief, Office of Public and  
International Affairs  
U. S. Coast Guard  
Washington, D. C. 20591  
(202) 393-6400

Capt. W. R. Riedel, USCG  
Chief, Ports & Waterways Division  
U. S. Coast Guard  
400 Seventh Street, S. W.  
Washington, D. C. 20591

Mr. Jack Hartke  
U. S. Coast Guard  
400 Seventh Street, S. W.  
Washington, D. C. 20591

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

States: Arkansas

Mr. H. Alexander  
State Planning Commission  
Game and Fish Building  
Little Rock, Arkansas 72201  
(501) 371-1207

Mr. R. G. Andrews  
Soil and Water Conservation Commission  
151 State Capitol  
Little Rock, Arkansas 72201  
(501) 371-1611

Mr. B. K. Bush  
State Planning Commission  
Game and Fish Building  
Little Rock, Arkansas 72201  
(501) 371-1211

Mr. R. W. Broach  
Administrative Assistant  
Game and Fish Commission  
Game and Fish Building  
Little Rock, Arkansas 72201  
(501) 376-1317

Mr. A. Bryniarski  
Soil and Water Conservation Commission  
151 State Capitol  
Little Rock, Arkansas 72201  
(501) 371-1611

Mr. L. L. Cockmon, Jr.  
Pollution Control Commission  
1100 Harrington  
Little Rock, Arkansas 72202  
(501) 371-1701

Mr. John F. Gibson, Jr.  
Soil and Water Conservation Commission  
151 State Capitol  
Little Rock, Arkansas 72201  
(501) 371-1611

Dr. W. A. Heffelfinger  
Industrial Research and  
Extension Center  
1210 McAlmont  
Little Rock, Arkansas 72202  
(501) 376-4456

Mr. Andrew H. Hulsey  
Director, Arkansas Game & Fish Comm.  
State Capitol  
Little Rock, Arkansas 72201  
(501) 376-1317

Mr. Keith Jackson  
Executive Director  
Soil & Water Conservation Comm.  
151 State Capitol  
Little Rock, Arkansas 72201  
(501) 371-1611

Mr. G. Kellogg  
State Health Department  
4815 W. Markham  
Little Rock, Arkansas 72205  
(501) 661-2378

Mr. Carl Olsson  
Waterways Commission  
138 National Old Line Building  
Little Rock, Arkansas 72201  
(501) 371-1111

Mr. N. F. Williams  
State Geological Commission  
State Capitol  
Little Rock, Arkansas 72201  
(501) 371-1646

Mr. Gilbert Stramel  
Soil and Water Conservation Commission  
151 State Capitol  
Little Rock, Arkansas 72201  
(501) 371-1611

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

States (Cont'd)

Illinois:

Mr. John C. Guillou  
Chief Waterway Engineer  
Department of Public Works and Buildings  
State of Illinois  
201 W. Monroe Street  
Springfield, Illinois 62706  
(217) 525-2503

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

States: (Cont'd)

Kentucky:

Mr. Minor E. Clark  
Commissioner, Kentucky  
Department of Fish and Wildlife Resources  
State Office Building Annex  
Frankfort, Kentucky 40601  
(502) 227-2231

Mr. Jewell Graham  
Director  
Kentucky Division of Water  
State of Kentucky  
Frankfort, Kentucky 40601  
(502) 564-3980

Dr. W. W. Hagan  
Kentucky Geological Survey  
University of Kentucky  
Lexington, Kentucky 40206  
(606) 258-9000

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

States: (Cont'd)

Louisiana

Mr. Warren P. Beedle  
District Engineer  
La. Dept. of Public Works  
State of Louisiana  
Box 2327  
Lafayette, Louisiana 70501

Mr. Homer J. Belanger, Attorney  
Louisiana Dept. of Public Works  
State of Louisiana  
P. O. Box 44155, Capitol Station  
Baton Rouge, Louisiana 70804

Mr. Daniel V. Cresap  
Chief Engineer  
Louisiana Dept. of Public Works  
State of Louisiana  
P. O. Box 44155, Capitol Station  
Baton Rouge, Louisiana 70804  
(504) 389-5577

Mr. Alan Ensminger, Chief  
Refuge Division  
La. Wildlife and Fisheries Comm.  
P. O. Box 158  
Belle Chasse, Louisiana 70037

Mr. Leo W. Hough, State Geologist  
Louisiana Dept. of Conservation  
Louisiana Geological Survey  
Geology Building  
Box G, University Station  
Baton Rouge, Louisiana 70803

Mr. Robert A. Lafleur  
Executive Secretary  
Louisiana Stream Control Comm.  
P. O. Drawer FC, University Station  
Baton Rouge, Louisiana 70803  
(505) 389-5309

Mr. Thurman C. Morgan  
District Engineer  
Louisiana Dept. of Public Works  
State of Louisiana  
Box 112  
Tallulah, Louisiana 71282  
(318) 312 or 313

Mr. Gus Stacy III  
Louisiana State Parks &  
Recreation Commission  
P. O. Drawer 1111  
Baton Rouge, Louisiana 70804  
(504) 389-5761

Mr. Ernest J. Taylor, Chief  
Water Resources Section  
La. Dept. of Public Works  
State of Louisiana  
P. O. Box 44155, Capitol Station  
Baton Rouge, Louisiana 70804

Mr. Arthur R. Theis  
Assistant Chief Engineer  
La. Dept. of Public Works  
State of Louisiana  
7252 West End Boulevard  
P. O. Box 41555, Capitol Station  
Baton Rouge, Louisiana 70804  
(504) 389-5577

Mr. John E. Trygg, Director  
Division of Public Health Engineering  
Louisiana State Board of Health  
P. O. Box 630  
New Orleans, Louisiana 70160

Mr. J. C. Webb  
Louisiana Dept. of Public Works  
P. O. Box 44155, Capitol Station  
Baton Rouge, Louisiana 70804  
(504) 389-6287

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

States: (Cont'd)

Louisiana (Cont'd)

Mr. Dewey W. Wills  
Supervisor, B.O.R.  
Louisiana Wildlife & Fisheries Comm.  
11535 Cagle Avenue  
Baton Rouge, Louisiana 70811

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

States: (Cont'd)

Mississippi:

Mr. Newman Bolls, Chief Engineer  
Board of Levee Commissioners for  
the Mississippi River  
P. O. Box 637  
Greenville, Mississippi 38701  
(601) 334-4813

Mr. Joe D. Brown, Director  
Division of Sanitary Engineering  
Mississippi Department of Health  
P. O. Box 1700  
Jackson, Mississippi 39205  
(601) 354-6616

Mr. Billy Joe Cross, Director  
Mississippi Game and Fish Comm.  
P. O. Box 451  
Jackson, Mississippi 39205  
(601) 354-7333

Mr. Barry O. Freeman, Chief  
Fisheries Division  
Mississippi Game and Fish Comm.  
P. O. Box 451  
Jackson, Mississippi 39205  
(601) 354-7311

Mr. Spencer E. Medlin,  
Comptroller  
Mississippi Park System  
2906 North State Street  
Jackson, Mississippi 39216  
(601) 354-6321

Mr. Joe F. Mooney, Chief Engineer  
Board of Levee Commissioners for the  
Yazoo - Mississippi Delta  
P. O. Box 610  
Clarksdale, Mississippi 38614  
(601) 624-4398

Mr. William H. Moore, State Geologist  
Mississippi Geological Survey  
P. O. Box 4915  
Jackson, Mississippi 39216  
(601) 354-6228

Mr. Clarence H. Morgan  
Chief, Small Watershed Programs  
1106 Woolfolk Building  
Jackson, Mississippi 39201  
(601) 354-7124

Mr. B. F. Smith,  
Executive Vice-president  
Delta Council  
Stoneville, Mississippi 38776  
(601) 355-9361

Mr. Hugh Tatum, Recreation Planner  
Mississippi R & D Center  
P. O. Drawer 2470  
Jackson, Mississippi 39205  
(601) 982-6386

Mr. Jack W. Pepper  
Water Engineer  
Mississippi Board of Water  
Commissioners  
State of Mississippi  
416 North State Street  
Jackson, Mississippi 39201  
(601) 354-7236

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

States: (Cont'd)

Missouri:

Mr. William H. Dieffenbach  
Water Resources Specialist  
Department of Conservation  
P. O. Box 180  
Jefferson City, Missouri 65101  
(314) 636-8141

Mr. Robert L. Dunkeson  
Executive Secretary  
Inter-Agency Council for  
Outdoor Recreation  
1203 Jefferson Building  
Jefferson City, Missouri 65101  
(314) 635-3262

Mr. Louis Garber, Director  
Bureau of Environmental Services  
Division of Health  
State Office Building  
Jefferson City, Missouri 65101  
(314) 635-4111

Dr. William C. Hayes  
State Geologist  
Division of Geological Survey  
and Water Resources  
P. O. Box 250  
Rolla, Missouri 65401  
(314) 364-1752

Mr. William A. Lee  
Chief Engineer  
Water Resources Board  
P. O. Box 271  
Jefferson City, Missouri 65101  
(314) 635-9251

Mr. Edward Lightfoot  
Chief Engineer  
Water Pollution Board  
P. O. Box 154  
Jefferson City, Missouri 65101  
(314) 635-9117

Mr. Andrew Loeb  
Office of Adm. Services  
P. O. Box 809  
State Capitol Building  
Jefferson City, Missouri 65101

Mr. Robert S. Miller  
Acting Director  
Bureau of Water Supply  
Division of Health  
State Office Building  
Jefferson City, Missouri 65101  
(314) 635-4111

Mr. Lee Norbury  
Executive Secretary  
State Soil and Water Districts Comm.  
705 Hitt Street  
University of Missouri  
Columbia, Missouri 65201  
(314) 449-6316

Mr. Clifford L. Summers  
Executive Director  
Water Resources Board  
State of Missouri  
Department of Business and Adm.  
P. O. Box 271  
Jefferson City, Missouri 65101  
(314) 635-9251

Lower Mississippi Region Comprehensive Study Directory (Cont'd)

States: (Cont'd)

Tennessee:

Mr. Leonard K. Bradley  
Office of Urban and Federal Affairs  
321 Seventh Avenue, North  
Nashville, Tennessee 37219  
(615) 741-2714

Mr. James Church  
Tennessee Department of Public Health  
300 Cordell Hull Building  
Nashville, Tennessee 37219

Mr. Walter Criley  
Division of Development Planning  
Department of Conservation  
2611 West End Avenue  
Nashville, Tennessee 37203

Mr. Jack S. Cuning  
Tennessee State Planning Commission  
C2-208 Central Services Building  
Nashville, Tennessee 37219

Dr. Bob Dean  
Division of Urban and Regional Studies  
Memphis State University  
Memphis, Tennessee 38111

Mr. David Eberling  
Tennessee State Planning Commission  
C2-208 Central Services Building  
Nashville, Tennessee 37219  
(615) 741-2577

Mr. Robert Hershey  
State Geologist  
G-5 State Office Building  
Nashville, Tennessee 37219

Mr. C. R. Lamphere  
Tennessee Division of Water Resources  
830 Federal Office Building  
Memphis, Tennessee 38103

Mr. James W. Pinkerton  
Tennessee Division of Water Resources  
51 Evans Building  
524 Union Avenue  
Knoxville, Tennessee 37902

Mr. Fred W. Stonberry  
Director  
Tennessee Game & Fish Commission  
Room 600, Doctors Building  
Nashville, Tennessee 37203  
(615) 741-2095

Mr. John M. Wilson  
Tennessee Division of Water Resources  
2611 West End Avenue  
Nashville, Tennessee 37203

